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Pacific Southwest Region

HOLMES & NARVER, Inc.

ENGINEERS-CONSTRUCTORS

4056255

405807

TO: H. L. Dietze, Chief Proj. Engr. JOB: 884 O/S 7539 R  
FROM: R. A. Boettcher, Resident Engr. RE: Building 419 - Gantry Crane

DATE: 12 February 1954  
NATIONAL ARCHIVES  
REPOSITORY: PACIFIC SOUTHWEST REGION  
COLLECTION: RG 326 ATOMIC ENERGY COMMISSION  
BOX NO. 199624 (#608) A16334 326-65V0170  
ELMER GENERAL  
FOLDER: JOB 884 PROJECT ENGINEERING FILE

References: Spec. 884-M-5  
TWX ENMSG-6418, TWX HN-858  
Vendor's Serial #8277, P.O. #28305

We wish to report that the above subject crane, as purchased from Crane Hoist Engineering Corporation, does not conform to the purchase specifications NO. 884-M-5, Revised May 25, 1953. This will be evident from a review of the test reports on this crane, copies of which are attached.

Paragraph 4-i of the aforementioned specifications requires that

"All controllers shall provide an increase in speed when operating toward the 'on' position and a decrease when operating toward the 'off' position."

The operation of the subject crane at present is such that when lowering under full load, the speed decreases when operating toward the "on" position, and increases when operating toward the "off" position. Under a five ton load and under no load the operating characteristics of the speed control mechanism is in conformance with specifications.

As suggested in your referenced teletype, an inspection of the mechanical brake has been made. There is no apparent damage to the speed reduction unit or brake, but adjustment appears possible only by changing shims through which pressure is applied to the brake plates. We hesitate to attempt jobsite adjustment of the brake mechanism, as this adjustment appears to be very critical and may require special test equipment to obtain proper torque values. Also, because of the different braking torques required, we question the advisability of inter-changing gear reducers between the main and auxiliary hoists.

The users have accepted the crane without further adjustment because of the time element involved. However, they have expressed dissatisfaction with its operational and safety features, and acceptance was secured only after provision was made for a forty-eight hour inspection. This inspection covers the mechanical condition of the solenoid brake, and was recommended by Jobsite Engineering after it was determined that the mechanical brake alone was inadequate to stop the hook travel when lowering under full load.

It is requested that contact be made with the Crane Hoist Engineering Corporation, and recommendations submitted to this office relative to placing the crane in proper operating condition. It is not feasible at this late date to attempt Jobsite revisions, or to secure the services of a factory representative; however, the necessary revisions will be made as soon as operations permit.

RAB:jm  
Encl. (2 reports) cc: W.C.Chenoweth, H/O  
with attach.  
cc: HO Chrono E. Jeffcoat, w/o attach.  
HO Central, OS Chrono, OS Central, OS Engr.

*R. A. Boettcher*  
R. A. Boettcher  
Resident Engineer  
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